

co-operation with sanitary engineers and with trained veterinarians, as well as with all other public-spirited individuals who are directing their energy toward improving the public health.

THE MAKING OF A HEALTH OFFICER.*

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Within the past two or three years it has become more and more apparent to those engaged in the solution of sanitary problems that despite the enactment of legislation looking to the prevention of disease, the enforcement of the sanitary code is wellnigh impossible without a coincident education of the general public in the rudiments of hygiene. Hence in those states which are blessed with an efficient, wide-awake public health organization, public lectures have been employed, traveling exhibits of various sorts have been prepared and an extensive propaganda of sanitary education has been launched. The great colleges have introduced into the curriculum compulsory courses in hygiene, lectures on the prevention of disease have become a regular part of the program at teachers' institutes, and in the high schools and grammar schools elementary hygiene is now taught.

Societies for the prevention of tuberculosis, the eradication of the venereal peril and the inculcation of the principles of right living have been organized, and have been preaching their doctrines through the press and from the rostrum. We live in a physical age and the wave of physical reform, the attention to the bodily machinery of the individual and the mass, is sweeping from one end of the land to the other. The demand for a Federal Department of Public Health has crystallized itself in the Owen Bill which is now before the Congress; the popular magazines are devoting more and more space to matters of general and personal hygiene: in fact the sanitary renaissance is upon us and the corner stone upon which this great fabric rests is education.

Gratifying as this is to those who believe that publicity is the handmaid of sanitary science, a careful study of the mechanism of health administration in the United States reveals a woeful lack of uniformity and in certain instances, deplorable evidences of inefficiency. In a detailed study of the statistics of typhoid fever in the United States the writer has had occasion to review all the recent available reports of the various state Boards of Health and has been deeply impressed with the high character of a few of the reports and the evidences of defective organization of the remainder. The registration states issue publications showing careful collection of statistics and perfect system of health administration, but many of the states publish annual reports which are of no value to the student of sanitary work and its results. Some issue no reports whatever and a few do not even collect the vital statistics. Frequently pages which could well be devoted to the publication of statistical studies or reports of sanitary endeavors are utilized in biographies of members of the issuing Board, and in place of pictures of something of sanitary importance we

find photographs of the governor or the state delegation in Congress. On the whole, when published the mortality statistics are quite accurate, but morbidity statistics as a rule are valueless. This latter fault should not be charged to the state boards of health, but to the profession as a whole. Some states do not use the International Classification of the causes of death, a few still cling to the classification introduced by Dr. Farr in 1835, while one or two boards seem to have a nomenclature all their own.

It is evident from the foregoing that something is wrong and it is the purpose of this paper to try and point out what this is and how it may be rectified.

With the exception of a few states, appointment to the state board of health and to the position of secretary or state health agent is a matter of political preferment and while the people are more generally demanding a higher efficiency of the occupants of these important offices, there is as yet too little attempt to secure the best trained men for these positions, and frequently the attached salaries are insufficient to tempt men of large experience. The tenure of office is also insecure and a public health officer who is unfortunate enough to arouse the animosities of those of strong political affiliations is apt to be rewarded with his congè. What has been said of state health officials applies equally to municipal and county sanitary officers. In the latter case the salaries are even lower and the tenure of office more insecure. Granted a sufficient salary and permanency in office, could physicians of ample training and experience be secured to discharge these important duties? While the Association of American Medical Colleges requires thirty hours of lectures in hygiene, it is hardly conceivable that such meagre instruction is sufficient to equip one who is to be entrusted with enforcement of the sanitary code and the protection of the general public from preventable disease. The average health officer is sincere in the discharge of his duty as he sees it, but it is doubtful if the limited instruction received in college, especially if the health officer is a graduate of long standing, and the meagre opportunities for study of modern sanitary methods, are extensive enough to meet all the requirements.

A few of the great eastern universities offer post graduate courses leading to the diploma of Public Health, but these are a long way off. The University of California, the Leland Stanford, Jr., University and the Oakland College of Medicine all contemplate introducing such courses into their curricula at an early date, but even if all of the medical colleges should offer opportunities it will be several years before they are largely attended, and even if they were, it would take several years before a sufficient number of certified sanitarians could be produced.

While I cannot speak for the plan and scope of the work which it is proposed to follow at Stanford, I am told that California contemplates the collection under a single head of a number of courses now scattered through several departments of the college of natural sciences. The non-technical course in the sanitary engineering curriculum, the

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bacteriology and microscopy of water, parasitology, medical entomology, vital statistics, food inspection, etc., will all be included. It is felt that little need be added to the courses now offered to make the work very complete.

The course which will be offered by the Oakland College of Medicine will cover one year and will be both practical and theoretical. It will include general and personal hygiene, sanitary engineering, especial stress being laid on the collection, storage, purification and delivery of water, and the collection, purification and disposal of sewage; theoretical plumbing; sanitary architecture; sanitary law, bacteriology, parasitology including medical entomology, sanitary chemistry and food inspection. The question of the collection and disposal of city refuse, the registration and compilation of vital statistics and the epidemiology of the communicable diseases will receive especial attention.

While such courses are to be highly commended and are undoubtedly our salvation in the future, we require some other means for our present uplift. We have heard much of the education of the general public and the better preparation of health officers of the future, but what shall we do to raise the standard of efficiency of the sanitary officer of the present? The answer is, "educate him." All of this has been borne in upon me all the more forcibly because recently I have been trying to increase my own knowledge of such things and I will say frankly to you that I have been simply overwhelmed with the depths of my ignorance.

But how shall we educate the underpaid and overworked health officer? He cannot afford the time and expense of a year away from work nor does his salary warrant such sacrifices. In other lines of educational work the correspondence course has been found of great value and it would seem worthy of a trial in the case which we are considering. The ideal method would be to have such courses given by the Federal Health Service, but that body is already burdened with tasks out of all proportion to the time and number of its personnel. Hence it would seem the duty of the individual states to give their various health officers the opportunity to bring themselves up to date in the knowledge of modern sanitary methods. California is blessed with an unusually efficient and progressive State Board of Health, therefore, what would be more natural than for that board to offer such instruction gratis to all health officers within the state? The cost would not be great and would include printing, postage and a few books of reference to be loaned to those taking the work.

As an experiment, a course in public water supplies might be first offered and if this proved a success the scope of the work might be extended. It is believed that such an opportunity would be welcomed and in offering it no reflection would be cast upon the ability of those who, against great odds and an insufficient remuneration, are fighting the public's sanitary battles. All of us must realize that the few lectures on hygiene received ten or fifteen years ago and the occasional opportunities for self improvement afforded by the meetings of the Health Officers' Association and a few scattering

articles in the medical journals, cannot be compared with a regular course of study mapped out by men of the experience and learning of your present state board. It is admitted that the correspondence method of instruction is not ideal but it is believed that it would serve to close the present hiatus until better means can be afforded.

Discussion.

Dr. W. F. Snow, Sacramento: I can only add the very heartiest approval of all that Dr. Rucker has said in his paper. It seems to me that the keynote of success is to place before the public, in the capacity of health officers, men of adequate training in this public health work. As Dr. Rucker has said, we cannot hope to achieve, at present, even with permanency of office and salary, what we could achieve with trained men, taught this work in our universities; men trained to handle and grasp the situations. Many of our states are doing certain things which will perhaps lead to this thought of Dr. Rucker's. The State of Massachusetts has provided ten to fifteen men who are advisory instructors of the State Board of Health. They have districts and traveling bureaus and have the power to assume control of the executive work in their districts. The State of New York requires that all health officers shall be sent to the Annual Conference of Health Officers under the direction of the State Health Board. Pennsylvania has done away with local organization and has 600 sanitary police with about ten medical officers from the medical profession to be called upon as medical experts. However, none of these will take the place of the school of correspondence which Dr. Rucker has suggested, and his paper certainly is most practical and timely.

Dr. S. W. Langdon, Stockton: I have been very much interested in this discussion and I think Dr. Rucker's remarks are very timely. When any one of us assumes the office of health officer, we know very little about the duties before us and we all realize we should learn more. Soon after I went into the office I went to Berkeley and took a course with Dr. Ward, which I found of great benefit. A course of correspondence, such as Dr. Rucker has suggested would be a great help to us all. There is one incident of interest which happened in our town in 1908, which goes to show the necessity for one health officer to help another. A man, in one of our small mountain towns had smallpox, for which he was quarantined. Becoming tired of quarantine, he got away and left the town. The health officer of that place telephoned to me at Stockton, saying that he thought the man had headed for Stockton. I advised the Sheriff and police who discovered the man, but not until he had been in town two days. As a result, 20 of his friends came down with smallpox soon afterward and by the following January, three months, we had 80 cases in Stockton, all because of our friend from the mountains. By March, however, we succeeded in getting rid of the disease and since then have had a pretty easy time, so far as smallpox is concerned. I mention this to show how a health officer of one place can co-operate with another. The escape of these people will occur.

Dr. F. L. Rogers, Long Beach: I am not a health officer, but I am exceedingly interested in this work and it seems to me that I cannot do less than to say at this time to you who are not health officers, that it is my opinion that we owe it to the community where we live, to wage an active campaign in support of our health officers. We can do a great deal to make the work easier and more efficient. The work our health officer has done in my community in particular, has been excellent and aided by the encouragement of the medical profession we hope for the best results. We must not sit back and wait for the health officer to accomplish these things, but we should offer him our co-operation.

Dr. Wm. Le Moyne Wills, Los Angeles: I have

the honor to belong to the State Board of Health and our views are almost entirely in accord with those suggested in this paper. The medical profession of this state should influence the legislators to enable the State Board of Health to have more funds and the county supervisors should appreciate the necessity of electing and paying health officers and providing them with traveling expenses so that they could attend such meetings as these. In Riverside county two years ago there was no such thing as a health officer and we had smallpox all over the county, but to-day we have one of the most enthusiastic young men in that county as health officer and he is working to the best of his ability and it is astonishing what he has accomplished. Perhaps Dr. Tucker will tell you something of his experiences.

Dr. G. E. Tucker, Riverside: I certainly feel somewhat modest in making any remarks in regard to the work I have been doing as county health officer in Riverside county. However, after the kind things Dr. Wills has said about me I feel obliged to speak for a moment of what has been occurring in the last six months in our county. For a number of years we have been unfortunate in not having had a health officer as the supervisors were somewhat prejudiced to making an appointment. The state legislature overcame this prejudice, however, when they passed a law making it mandatory upon every county to have such an officer. When my appointment was made, I was told that I should receive \$50.00 per month if I could earn it and if not the salary would be reduced; instead at the end of two months the salary was raised to \$75.00 with a promise of an increase if I could earn it. Rather reluctantly I asked for an appropriation for a kodak and supplies which was promptly made. When I spoke about going to Sacramento to attend the meeting of the health officers, provisions were made to meet my expenses. Incidentally, when I spoke of having squirrels shipped to San Francisco from our county, and explained the necessity of having a great many examined, I was told to go ahead and I was assured all expenses would be paid. After the health work was started, I found the supervisors were not only willing to give me their individual support but I believe they would also be willing to increase the salary to an amount commensurate with the duties of the office. A great many of the subjects before the health department to-day, have been problems with which we have had to cope, but we are probably more fortunate inasmuch as the city health officer is my partner and we are able to co-operate in all our work. We have had to deal with the rabies question, having had 26 cases among dogs in the city and county. The supervisors and city council made allowances for the expenses incurred in the caring for seven to ten dogs during three or four weeks, which was no small item. The question of typhoid fever has been a serious one with us. We have been losing a number of people with typhoid fever every year, probably as many as ten to fifteen, but heretofore we were unable to trace the source of infection. This year we made up our minds to determine, if possible, the cause of our epidemic. Accordingly the food and water supply were thoroughly investigated and apparently were all right, but the occurrence of cases among people living in the vicinity of irrigating canals led us to trace the contamination of canal water to the sewage which was carried into it from a neighboring city. Two ditches, one carrying 850 inches of water going in one direction of the city and another one carrying 3000 inches going in the other direction, were found polluted. This water was not used for drinking purposes but dairy utensils were washed in it, such implements as the pails, screens and so forth and the large cans used for carrying the cream to the creameries were rinsed in this same polluted water. One can readily imagine the condition of butter made from this cream. We hope to have all of the sewage diverted from these canals in a few months. Notices to the water companies owning the canals have been

issued and warning notices have been inserted in the papers, and other precautions have been taken, but it is hard to prevent the people from using the water. We have also had to deal quite extensively with trachoma.

Dr. Stanley P. Black, Pasadena: This question is of the greatest importance. At present it is simply a political job. Many doctors are willing to accept the position and do a lot of work and do it without pay, but still there are certain points which give them a standing in the community and that pays them—or they think it does. However, in going about the neighboring counties and seeing the health officers, we find how little most of us know about sanitary conditions. We do not know how to investigate and that is the first law of success in this work. I think the health officer should not be appointed by the local mayor or local board of health. They are personally prejudiced in favor of one man or another. I believe the appointments should be established by the state law and should be made by and with the advice of the State Board of Health. If we have a degree of public health, as contemplated in the universities, they, the State Board of Health, can gradually work these graduates into the positions of health officers.

Dr. W. Simpson, San Jose: It comes to me to-day that I am just of age in this work for it is just 21 years since I began it. I was a political appointee and have been accepted as such straight through, having been either city health officer or connected in some way with the health department for 21 years. I certainly appreciate the difficulties encountered in the beginning by not knowing anything about it. There is something to be said in favor of the low salary for it does not tempt any man to take the position unless he is a crank on these matters. The only method by which I have seen my way out of my difficulties was in knowing how to get work out of other people who knew the subject thoroughly and so I send to Dr. Rucker whenever I do not know what to do and someone comes from his office—or else I send to Doctor Snow—and by some competent person the inspection is made. I for one, am ready to receive instructions through the correspondence course as suggested by Dr. Rucker, and endorse it most heartily.

Dr. Raymond Russ, San Francisco: I was much impressed with the section of Dr. Rucker's paper in which he stated that the public as a whole is deeply interested in health matters and that we as physicians will have to do a great deal in order to keep apace with the public mind. While physicians understand the general principles of public health work they are lacking in accurate knowledge of many technical questions such as sewage disposal, water supply and garbage incineration. A knowledge of the elements of sanitary engineering is essential to every physician doing public health work. It is only with such knowledge that he will be able to cope with the problems which confront him. The need of education in these subjects is a matter of universal comment; there must be a great mutual uplift. Therefore I believe that the suggestion which Dr. Rucker makes is most excellent and that we should not fail to act upon it.

Dr. R. G. Brodrick, San Francisco: I think the keynote to the whole question of the making of a health officer is taking his position entirely out of politics. Until you do that you will simply have a creation in the power of the administration. Our recent experiences in San Francisco you know. As soon as a health officer does any work he very quickly hears that he is a little too active, that he is hurting certain interests. I do not think you will find in any part of the state any health officer who is doing his duty who is not meeting opposition. Your efforts in the future should be in the direction of having a trained body of men appointed by the State Board of Health who should be delegated to every county or city, to give their entire time to their profession. So often you find, owing to the

meagre salary, that this position is simply a side issue. The doctor gets his appointment and continues attending to his private practice at the same time, and really about all the work for the health office that he is doing is signing death certificates. This work is too important to carry along with a large or growing practice.

Dr. W. W. Fraser, San Jose: As I have been a member of the board of health of San Jose for two years as either its health officer or president, I realize the value of the paper which Dr. Rucker has read to-day, and I would emphasize it a little further by saying that instruction in correspondence, as suggested by Dr. Rucker, should not only be taken up by the health officer but by every physician as well.

Dr. C. Rucker, closing discussion: The directory of the City of Washington has the following inscription upon the fly leaf, "In order to look a name up in this directory you must know how to spell it." In order to solve the sanitary problem you must know something of the basis of the thing. You must have some idea about the individual problems, of mechanics, of sanitary engineering, etc., etc. We should also have some idea of the methods of estimating the population of the city in question in 50 years from now. We must have some good general notions about the way we are going about it to protect our water supply, preventing the pollution of the water after it has collected—pollution either by pathogenic organisms or growths which may make the water taste badly. We must know how that water should be filtered and purified or sterilized before it is delivered to the mains. We must have some idea of the engineering problems of the laying of the mains. We must know something going back of all this,—back to the rainfall, and where to go to look up such data, and where to find the different parts of the weather bureau reports. We must at least know where to go to look these things up. I regret to say that many of us have these problems brought up to us and we are unable to tell even where to go to look up the information. The books we have and the text books are out of date—they are of the stone age—there are better methods and safer methods and more economic methods. It behooves us as health officers to know these things. A man who is a health officer is just as much a specialist as a man who treats the eye, ear, nose and throat, or flat feet or anything else, because he is the man who has got to go to work and protect the entire population. He is the man who is responsible to the general public for the health of the community and let me tell you that the general public is waking up to holding the health officer responsible. And more and more in the future they are going to see to it that the health officer is true to this trust. They are not going to allow that Dr. Blank to have the appointment because he is a friend of the mayor. The people are getting wise to these things and are going to see to it that Dr. Blank is appointed because he can earn the salary and they are going to pay the proper salary if he can deliver the goods. If Dr. Blank takes the job and poses as a specialist but does not deliver the goods, it is a case of malpractice. The idea that I have put forward in my paper has been to make this Society think and to make the members of this Society talk in order that when we see this discussion before our eyes in the Journal we may talk it over and think it over so that we will do something; that is the thing that tells the story,—whether we deliver the goods or whether we merely sit around and talk about it.

THE OBSTETRIC CONSULTANT.*

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It would be an ideal condition of things from the viewpoint of reduction of the morbidity and mortality of mother and child if it were possible for all confinements to take place in properly appointed obstetric hospitals and be attended by qualified practitioners engaged in no other line of work. But such a possibility is as a general proposition clearly out of the reckoning at present and probably for many, many years to come; and we must content ourselves by making the best of the condition that confronts us.

Time was when the field of human knowledge was so circumscribed that it was possible for a contemporary, as in the case of the worthies of the Middle Ages, to attribute to a single man acquaintance with every thing known to the race. He knew everything there was to be known. But times and conditions have changed, the Middle Ages are past and we would now consider as a prodigy a man who knew all the facts in any single department of knowledge and endeavor, let alone the entire circle of human thought. Nor do we consider it remarkable or a confession of weakness when men now divide and again subdivide even single lines of thought, endeavoring to arrive again at a viewpoint where the horizon is sufficiently circumscribed to enable a single intellect to comprehend all the facts contained therein, well satisfied if they can be master of their entire subject, limited though it be. It seems hard to set bounds to this rage for subdivision of topic, this desire to specialize on one point and approximate perfection thereupon. Nor will I take your time with a recital of the way it has worked out in our own line; medicine has been delivered over to specialists, actual or professed, without number, and with succeeding decades the specialties are again divided till an internist may, for example, devote himself exclusively to the digestive system or to the heart.

Yet in all this wilderness of specialties has it occurred to you that there is one department of medicine almost free from specialism? Specialists in obstetrics are few and far between, meaning thereby men who devote themselves exclusively thereto. There are plenty of specialists in obstetrics and gynecology combined and plenty of practitioners who while engaged in general practice, have a major interest in obstetrics; but even in large cities there are but few specialists in obstetrics alone, and why?

Primarily because while the financial reward to be drawn from most lines of special work is large as compared with the income from general practice, the pecuniary emoluments of even a reasonably high class of obstetric practice are, in proportion to the wear and tear incurred, pitifully small. Except among the well-to-do who are after all but a small

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